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INSTITUTE OF SOCIAL MEDICINE

COUNTY OF ZETLAND

A N N U A L R E P O R T

on the

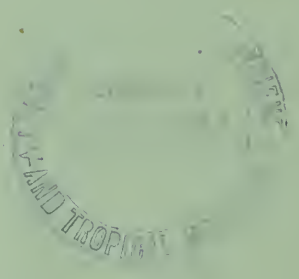
PUBLIC HEALTH ADMINISTRATION OF THE COUNTY

by the

MEDICAL OFFICER OF HEALTH

YEAR ENDED 31st DECEMBER 1945

6054



INSTITUTE OF SOCIAL MEDICINE
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Public Health Office,

Brentham Place,

LERWICK, June, 1946.

To

The Department of Health for Scotland.
The County Council of Zetland.
The Public Health Committee of the County Council of Zetland.
The Town Council of Lerwick.

Gentlemen,

I have the honour to submit the Annual Report on the Public Health Administration of the County for the year 1945.

I am, Gentlemen,
Your obedient Servant,

S. A. B. Black,

County Medical Officer.

VITAL STATISTICS

The following is a summary of the principal statistics for the year 1945. Figures for years 1943 and 1944 are given for comparison:-

	Zetland			Scotland
	1943	1944	1945	1945
Civilian population (estimated)	18,670	18,194	18,251	
Crude death rate per 1,000 population	18.3	15.5	16.6	
Death rate adjusted for age and sex distribution ..	11.9	10.1	10.8	13.2
Live births (including illegitimate)	310	331	291	
Birth rate (per 1,000 population)	15.3	16.5	14.7	16.9
Illegitimate birth rate (per 1,000 births)	9.0	8.8	8.6	8.6
Infant mortality rate	29	33	34	56
Deaths from tuberculosis (all forms)	22	10	19	
Death rate from tuberculosis (all forms)	1.18	0.55	1.04	0.79
Deaths from pulmonary tuberculosis	18	5	13	
Death rate from pulmonary tuberculosis	0.96	0.27	0.71	0.60
Deaths from principal epidemic diseases	18	6	3	
Death rate (per 1,000 population) from principal epidemic diseases	0.96	0.33	0.16	0.14

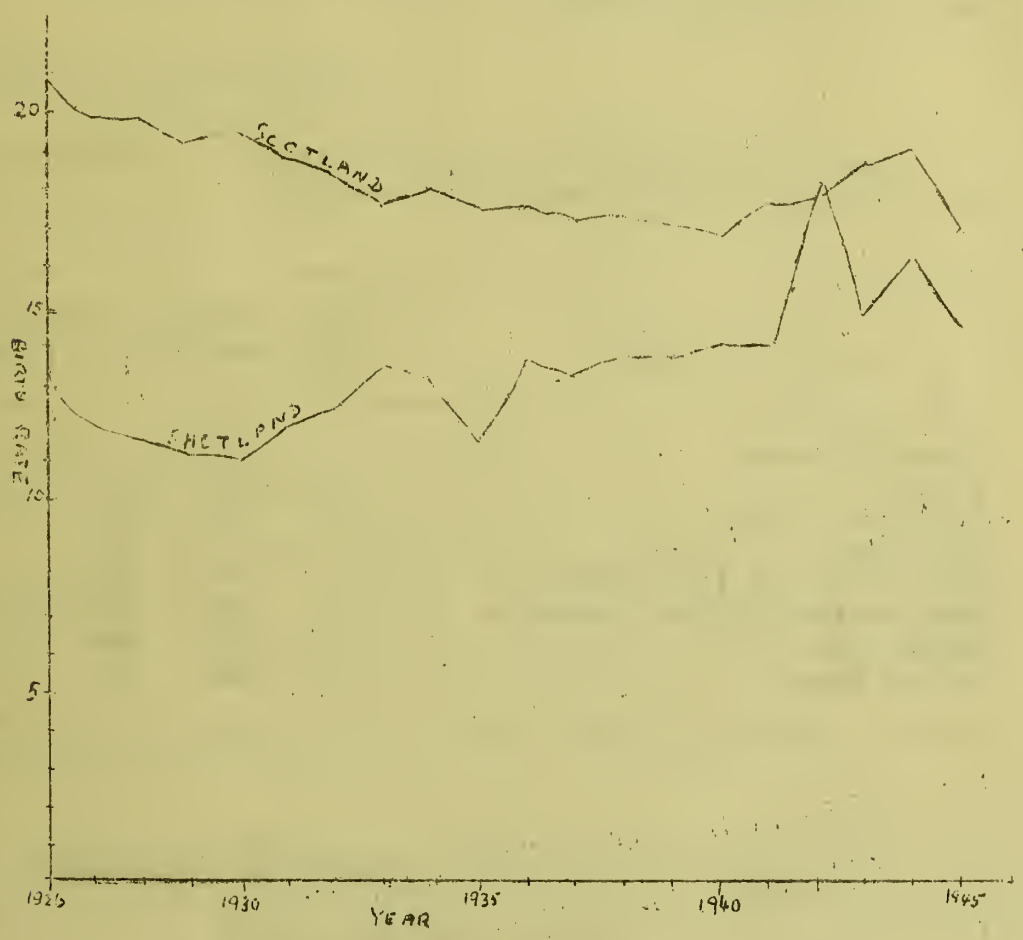
The following table shows the number of deaths at various age periods from all causes:-

	1945		
	M	F	Total
All ages	138	165	303
- 1	5	5	10
1 - 5	2	1	3
5 - 10	1	-	1
10 - 15	-	1	1
15 - 25	2	3	5
25 - 35	4	5	9
35 - 45	4	7	11
45 - 55	7	8	15
55 - 65	17	20	37
65 - 75	41	35	76
75 - 85	40	54	94
85 and over	15	26	41

The birth rate for Scotland in 1945 was 16.9. This is the lowest figure ever recorded. The sudden drop is attributed to the absence from home of a large proportion of the male population during the final months of the fighting in Europe.

Shetland's birth rate for 1945 (14.7), though well below the Scottish figure, is the fourth highest rate recorded for the County in the past twenty years.

Birth Rate Scotland & Shetland, 1926 - 1945



The graph shows that the birth rate has been a little better in the past ten years than in the decade before that.

In all long term planning of our hospital and public health services in the County we should remember to take into account the changes in population that are bound to occur in a community that has an unusually high age average and a birth rate which has been below the replacement level for more than twenty years.

There were over 2,700 school children in the County ten years ago, but the total in 1945 was 2,300.

The other figures in the table of vital statistics call for little comment; they are of little importance in comparison with the figures showing future decline in population./

population. The adjusted death rate is below the Scottish death rate; it is higher than last year and below the figure for 1943.

The new record low infant mortality rate for Scotland, though much lower than any previously recorded, is still far higher than the low rate which we have been fortunate enough to have in Shetland for more than a decade. The reason for our consistently low infant mortality rate is not obvious and is worthy of investigation.

The following table shows in order of frequency the most common ascribed causes of death:-

Cause of Death	Percentage of Total Deaths (to nearest whole number)
Heart Disease	22 per cent.
Cancer	14 do.
Cerebral haemorrhage	14 do.
Old age	11 do.
Tuberculosis (all forms)	6 do.
Other circulatory diseases ...	5 do.
Nephritis	3 do.
Other Causes	25 do.

NURSING FACILITIES, MATERNITY SERVICES, INFANT WELFARE WORK

Infant Welfare

The eighteen District Nurses in the County have performed regular infant welfare visits to almost every child under school age in their areas, and 1,030 children were paid a total of 4,500 routine health visits. In the course of their work the Nurses have encouraged parents to use the Ministry of Food's vitamin preparations and to agree to have their children immunised against diphtheria.

In Lerwick Nurse Shearer gives advice to mothers and expectant mothers in a Child Welfare Centre which is open two afternoons each week, and also makes home visits to expectant mothers and children.

Details/

Details of this work are shown in the following table:-

Home Visits

Expectant mothers	Number visited	-	19
	Total visits	-	48
Infants	Number visited	-	139
	Total visits	-	480
Children (1-5 years)	Number visited	-	187
	Total visits	-	684

Child Welfare Centre

Expectant mothers	First visits	-	39
	Total visits	-	132
Infants	First visits	-	134
	Total visits	-	1,135
Children (1-5 years)	First visits	-	160
	Total visits	-	1,287

Vitamin Preparations

The Food Executive Officer informs me that this county leads the field in the North East of Scotland division in the extent to which welfare foods are used. The figures showing what is termed the "percentage of potential uptake" are as follows:-

Orange juice 37.4; Cod liver oil 22.9: A & D Tablets 34.4.

These figures do not differ much from those for the whole country, and could be improved upon. Last year's investigation gave figures which suggested that vitamin preparations were then being used far more than the above figures indicate.

The food shortage affecting most of the world is little noticed in this fortunate area, but expectant mothers and parents of young children should nevertheless take full advantage of the issue of the special vitamin preparations which we in this country are so fortunate to get.

Our gratitude is due to the District Nurses who have kindly continued to perform the work of supervising the distribution of vitamin preparations. This is not always an easy task and is outside their ordinary duties.

Maternity Services

The County Scheme under the Maternity Services (Scotland) Act, 1937 which started at the end of 1944 has now been in operation for over a year. There are signs/

signs that the scheme is becoming increasingly popular as it becomes better known. 113 maternity cases were accepted under the scheme and 97 births had occurred among the cases during the year. 44 per cent of all births occurring outside the burgh of Lerwick were cases accepted under the scheme.

There were no deaths from diseases or accidents of pregnancy. Three cases of puerperal pyrexia were notified.

The need for maternity beds in the ~~XXXXX~~ county is obvious; beds are needed both for cases requiring surgical treatment and for normal uncomplicated cases. The acute housing shortage together with the difficulty of getting help in the home has made this need more acute than ever for many expectant mothers.

At a time when existing hospitals in Scotland have had to close whole wards for lack of sufficient nursing staff any provision of extra beds (whether in association with an existing hospital or as a separate maternity home) will be particularly difficult. At present we are awaiting the Department of Health's decision on a proposal which may enable some additional hospital beds to be put into use for maternity cases.

Details of the ante-natal and maternity work done by District Nurses are given in the following table:-

Births attended by Nurse only	-	50
" " Nurse and Doctor	-	232
Mothers who received ante-natal visits	-	256
Total number of ante-natal visits	-	1,449

Seven births were attended by a doctor without the assistance of a nurse, and 15 births occurred in the Gilbert Bain Hospital.

INFECTIOUS DISEASES

The following tables show the regional and age distribution of cases of infectious diseases in the County during 1945. (Tuberculosis cases are considered later in this report).

Disease/

Disease	At all ages	-1	1-	5-	15-	25-	45-	Received hospital treatment
Lerwick Burgh								
Scarlet Fever	13	1	2	6	3	1	-	8
Paratyphoid B. ..	1	-	-	-	1	-	-	1
Erysipelas	2	-	-	-	-	-	2	2
Dysentery	23	-	-	-	11	9	3	22
German Measles ...	5	-	-	-	3	2	-	5
Mumps	5	-	-	-	3	2	-	5
Catarrhal Jaundice	1	-	-	-	1	-	-	1
Measles	1	-	-	-	-	1	-	1
Puerperal Pyrexia.	1	-	-	-	1	-	-	1
Totals	52	1	2	6	23	15	5	46
Mainland								
Mumps	10	-	-	3	2	5	-	8
Scarlet Fever	15	-	2	11	-	2	-	2
Erysipelas	8	-	-	-	2	2	4	2
Measles	13	-	-	2	5	6	-	11
Chickenpox	2	-	-	1	1	-	-	1
Dysentery	41	-	3	4	9	15	10	8
Primary Pneumonia	2	-	1	-	-	-	1	1
Catarrhal Jaundice	1	-	-	-	1	-	-	1
Puerperal Pyrexia	1	-	-	-	-	1	-	1
Broncho-Pneumonia	1	-	-	-	1	-	-	1
Malaria	1	-	-	-	-	1	-	1
Whooping Cough ...	4	1	-	3	-	-	-	-
Diphtheria	1	-	-	-	1	-	-	1
Septiceaemia	1	-	-	-	1	-	-	1
Totals	101	1	6	24	23	32	15	39
North Isles								
Puerperal Pyrexia	1	-	-	-	-	1	-	1
Paratyphoid B. ...	1	-	-	-	-	1	-	-
Scarlet Fever	4	-	1	3	-	-	-	-
Measles	2	-	-	1	-	1	-	-
Broncho-Pneumonia	1	-	-	-	-	-	1	-
Catarrhal Jaundice	1	-	-	-	-	1	-	1
Streptococcal Throat	1	-	-	-	1	-	-	1
Septiceaemia	1	-	-	-	-	1	-	1
Totals	12	-	1	4	1	5	1	4

Excluding tuberculosis cases there have been 156 cases of notifiable infectious disease. One case of measles and two cases of influenza were fatal. Whooping cough was a nuisance in many areas of the County. As this disease is not commonly notified the number of cases which occurred is not known. Four schools were closed as a result of this ailment. Apart from the 64 notified cases of bacillary dysentery/

dysentery there were other small outbreaks of infectious diarrhoeal conditions about which information is scanty, as many of the cases were too mild for the affected household to want to send for medical help.

Particulars of house disinfections carried out are given in the Sanitary Inspector's report.

County Isolation Hospital

95 patients were treated in the Isolation Hospital. This figure is 42 fewer than last year, but included some severely ill cases which gave heavy work for the small nursing staff of this institution.

New apparatus for the administration of oxygen was acquired during the year and proved most useful.

The following table shows the work done and the illnesses treated:-

Bed accommodation	-	32
Total admissions	-	95
Total discharges	-	92
Total deaths	-	7
Beds occupied:-		
Average during year	-	6.1
Highest " "	-	11
Lowest " "	-	2

Illnesses treated:-

Acute retention of urine	-	1
Acute rheumatism	-	1
Bronchitis	-	4
Cellulitis of knee	-	1
Chickenpox	-	1
Dermatitis	-	2
Diphtheria	-	3
Dysentery	-	4
Enteritis	-	1
Erysipelas	-	3
Erythema Nodosum	-	1
Flexner dysentery	-	1
Heart disease	-	3
Impetigo	-	2
Infective hepatitis	-	3
Influenza	-	2
Measles	-	12
Meningitis	-	2
Mumps	-	12
Paralysis agitans	-	1
Paratyphoid Fever	-	2
Pericarditis	-	1
Pleurisy	-	2
Pleurisy with effusion	-	3
Pneumonia	-	2
Puerperal pyrexia	-	3
Pulmonary tuberculosis	-	1
Rubella	-	3
Septiceaemia	-	2

Scarlet fever/

Scarlet fever	- 8
Suspected Scarlet fever	- 1
Streptococcal throat	- 1
Subarachnoid haemorrhage	- 1
Typhoid carrier	- 1
Urticaria	- 1
Urethritis	- 2
Varicose ulcer	- 1
Vincent's Stomatitis	- 1

Diphtheria Immunisation

Propoganda to encourage parents to have their children immunised against diphtheria was tried by means of press advertisements and posters in May. The choice of month was unfortunate. Victory over Germany drew attention from any advertisements. The most effective way of encouraging immunisation of children is through the personal influence of the District Nurses.

256 children were given protective inoculations. 173 of these children were below school age. The percentage of school and pre-school population who have been immunised is now 75 per cent. (A more accurate figure has been obtained for the total school and pre-school population and also many immunised children have left school. Both these facts have reduced this percentage from a figure previously given). Children should be immunised when about twelve months old to protect them over the age period in which the disease has the highest mortality.

Immunisation is advisable. About 2,000 new cases of diphtheria are reported each week in the British zone of Germany, and men are continually coming back and forward on leave from there.

Smallpox and Vaccination

Only 27 vaccinations of infants were performed. The custom of resorting to statuatory declarations of conscientious objection to vaccination is now well established. This is understandable when there has been no hint of any risk of smallpox for so many years. There may be a considerable rush for vaccination some day. In the meantime we are relying on the Port Health Authorities of the larger ports to protect us from this disease. During 1945 two ships from the East which arrived in Britain with smallpox on board contained contacts bound for Shetland. The necessary precautions were taken. (Since the end of the year seven "smallpox" ships containing ten travellers returning to Shetland have been notified).

Port Sanitary Regulations

Between V.E. Day and the end of the year, 140 vessels made Lerwick their first port of call after leaving/

leaving a foreign country. In each case satisfactory Declaration of Health forms were received.

TUBERCULOSIS

The tuberculosis death rate in Shetland used to be far higher than the rate for Scotland, but in the last twenty-five years it has steadily approached the Scottish rate. When one is considering so small a total of deaths, a few extra deaths in any one year can produce a death rate nearly double that of the previous year; for this reason it is better to consider our average death rate over a period of years.

The average death rate (per 1,000 population) over the past five years is:- Tuberculosis (all forms) 0.93; Pulmonary Tuberculosis 0.69. The equivalent Scottish figures are 0.79 and 0.60.

The following comparative figures are of interest:-

	1943	1944	1945
New cases (diagnosis confirmed) notified during year:-			
(a) Pulmonary	24	29	20
(b) Non-Pulmonary	8	8	16
No. of persons resident in Shetland on December 31st known to be suffering from tuberculosis:-			
(a) Pulmonary	150	194	151
(b) Non-Pulmonary	83	57	54
No. of persons who died from tuberculosis:-			
(a) Pulmonary	18	5	13
(b) Non-Pulmonary	4	5	6

Zetland County Sanatorium

During the year 15 patients were admitted, 11 were discharged and 3 died. Nine of those discharged had the disease quiescent, three of these patients have since resumed work; the remaining two were found to be suffering from conditions which were not tuberculous.

Occupational therapy has done much to keep the patients from developing a bored and unco-operative frame of mind. This was started with the help of the Red Cross Society in the beginning of the summer in the form of tapestry work and mat making, but soon other handicrafts were attempted. Six of the sanatorium patients were among the prize winners in the recent Arts and Crafts exhibition.

The increasing use of collapse therapy in selected cases means that from time to time there will be patients who require short periods in the thoracic surgical unit of a larger institution before returning to Lerwick for the/

the completion of their treatment. At present it is difficult to get hospital accommodation for such cases. The report of Professor Aitken and Dr. Thompson (Scottish Hospitals Survey - Report on the North-Eastern Region) suggests that the time may come when our sanatorium will be a unit in a large regional tuberculosis scheme. One hopes that it will then be easier for bed accommodation to be obtained in the south when required, and for us to obtain a consultant's services in Lerwick periodically.

Surgical Tuberculosis

Gilbert Bain Hospital. There were 23 patients admitted, 17 discharged and 5 deaths among patients suffering from tuberculous conditions in the Gilbert Bain Hospital.

144 X-ray examinations of tuberculous patients or patients suspected of suffering from a tuberculous condition were made at the Gilbert Bain Hospital during the year.

Other Institutions. Stracathro Hospital treated two cases of tuberculosis from Shetland and two others are at present in Southfield Sanatorium.

Domiciliary Supervision

The task of keeping in touch with tuberculosis cases is not always easy, and requires the co-operation of the patients. District Nurses have performed a total of 851 visits to 156 tuberculous patients in their homes.

In Lerwick burgh Nurse Shearer has visited 71 patients making a total of 352 visits.

CARE OF THE AGED AND INFIRM

In the County Homes a daily average of 40 old or chronically ill people are nursed. There have been 33 admissions, 12 discharges and 17 deaths. The Matron, Governor and staff have performed their exacting duties with a devotion that can only be appreciated fully by those who are familiar with the difficulties of this kind of nursing. There has been a shortage of domestic and of nursing staff at various times during the year.

It has already been mentioned in this report that there is in Shetland an even higher age average of the community than in Scotland generally. A large proportion of old and infirm people will in future be relying on a decreasing number of able bodied younger persons to take care of them during their last few years. The fact that in many cases the children of these old folk will be earning their living away from home increases the difficulty. Financial help for the aged may be forthcoming from the relatives/

relatives, but to get people to nurse and look after them in their homes may not be so easy.

There are at present old people known to the public health authorities who are not able to look after themselves, but who refuse to consider entering an institution. Unfortunately they consider some stigma will be attached to them if they do this.

The whole question of the care of the aged members of the community is going to become more of a problem year by year.

LABORATORY SERVICE

The following statement of laboratory examinations for the year has been provided by Dr. Smith:-

CITY HOSPITAL, ABERDEEN

LABORATORY EXAMINATIONS FOR SHETLAND

January - December, 1945

	Positive	Negative	Total	Grand Total
Diphtheria:				
Throat, nose and ear swabs.	0	10	10	10
Tuberculosis:				
Sputum	25	75	100	
Faeces	0	2	2	
Urines	0	12	12	
Pus and fluids	0	7	7	
Cerebro-spinal fluids	1	8	9	130
Enteric Fevers:				
Blood cultures	0	9	9	
Widals	4	21	25	
Faeces	11	7	18	
Urines	2	7	9	61
Undulant Fever:				
Blood agglutinations	0	8	8	8
Bacillary Dysentery:				
Faeces	17	29	46	46
Food Poisoning:				
Blood culture	0	1	1	1
		Carry forward		256

	Positive	Negative	Total	Grand Total
Brought forward				256
Venereal Diseases:				
Wassermann Reactions	10	65	75	
Laughlen Tests	9	62	71	
Gonococcal smears	3	15	18	
Bloods for gonococcal complement fixation test	0	9	9	173
Biochemical Examinations:				
Blood sugars			1	
Blood ureas			16	
Faeces for blood			1	
Van den Bergh			2	
Icteric Index			2	
Miscellaneous			1	23
General Examinations:				
Blood cultures			4	
Blood counts			6	
Differential cell counts			13	
Cerebro-spinal fluids (other than tuberculous and luetic)			2	
Vaccines			1	
Histological specimens			34	
Cervical swabs			2	
Sputum for organisms			3	
Throat, nose and ear swabs for organisms			6	
Chest pus and fluids for organisms			5	
Other pus and fluids for organisms			10	
Faeces for organisms			1	
Miscellaneous			1	
Urines: pathological examination			20	
bacteriological examination			18	
Waters: chemical examination			1	
bacteriological examination			51	
Milks: bacterial counts			1	
fat			1	
organisms			1	181
Animal Inoculations:				
Guinea pigs inoculated with human material for tubercle bacilli			21	
Rabbits inoculated with urine for Friedman test			10	31
				664

Dr. James Campbell has carried out the following examinations/

examinations:-

Sputum	18
Urine - Examinations	12
Cultures	5
Blood counts	22
Urethral smears	1
Throat - Swabs	11
Cultures	3
Other smears	4
Cerebro-spinal fluid	7
Culture from skin infection	1
	84

DIABETES

Insulin is regularly supplied under the Public Health (Scotland) Amendment Act, 1925 to two persons. A total of 15,400 units protamine zinc insulin and 9,600 units insulin was supplied.

SCALLOWAY WATER SUPPLY

With the exception of one examination made in September the treated water of the Scalloway supply has produced satisfactory reports from the bacteriologist. Samples were examined on six occasions.

BURGH OF LERWICK

Housing

The following figures show the extent of the housing shortage in the Burgh:-

Number of applicants for tenancy of Council houses - 304

Number of applicants known to be living in insanitary or overcrowded houses and in need of re-housing - 280

Number of families occupying houses not officially closed but recommended for closure - 75

Number of families occupying houses on which a closing order has been made or which were acquired with a view to closure by the Local Authority - 30

Unfit 'closed' houses which have been reconditioned and are temporarily occupied - 3

Number of Council houses overcrowded - 32

There/

There is no satisfactory cure for this state of affairs other than the erection of a few hundred houses, and to achieve this we and every other burgh in Scotland are faced with the same difficulties.

Water.

Bacteriological analyses show that the raw water in Sandy Loch has a high bacterial count. Bacteriological examinations of the treated water have been made every eight to ten weeks throughout the year and the bacteriologist's reports have been satisfactory on every occasion. Efficient use is being made of the plant available for purifying the water.

Food Samples.

Thirteen samples of sweet milk were sent to the analyst during the year. In each case a satisfactory report was obtained.

Inspections of the premises of all food vendors have been made by the Sanitary Inspector and the Medical Officer of Health.

Cleansing.

The burgh's cleansing staff now consists of twelve full-time employees.

TUBERCULIN-TESTING OF CATTLE

The tuberculin testing of cattle in the County continues and is about half completed. There has been an almost complete absence of reactors to the test. While there is a high rate of infection in the rest of Britain this County may soon prove to be the first to have all its cattle entirely free from tuberculosis. The final report of those responsible for the testing is awaited with great interest. It is hoped that some milk producers will follow up the testing of their herds by fulfilling the other requirements which would enable them to sell their milk under the special designation "tuberculin-tested."

Further information about the inspection of foodstuffs, water supplies, meat, and dairies have been included in the separate report of the County Sanitary Inspector.

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